

544,260

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
19 August 2004 (19.08.2004)

PCT

(10) International Publication Number  
**WO 2004/069062 A2**

(51) International Patent Classification<sup>7</sup>: **A61B 17/16, A61F 2/36**

(21) International Application Number:  
PCT/GB2004/000406

(22) International Filing Date: 3 February 2004 (03.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0302459.3 3 February 2003 (03.02.2003) GB

(71) Applicant (for all designated States except US): **UNIVERSITY COLLEGE LONDON** [GB/GB]; Gower Street, London WC1 6BT (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BLUNN, Gordon** [GB/GB]; 24 North End, Bassingbourn, Royston, Hertfordshire SG8 5NY (GB). **GOODSHIP, Allen, E.** [GB/GB]; Foxglove, Coleman Green Lane, Wheathampstead, Hertfordshire AL4 8ET (GB). **FANG, Sze-Ching** [—/—]; 3F, No. 11 Ho-Ping E. Rd. Sec. 3, Taipei (TW).

(74) Agents: **WHITAKER, Iain, Mark et al.**; Marks & Clerk, 45 Grosvenor Road, St Albans, Hertfordshire AL1 3AW (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A SURGICAL KIT FOR HEMIARTHROPLASTY HIP REPLACEMENT

(57) Abstract: The present invention concerns apparatus and methods for hip refurbishment / replacement and in one aspect provides a kit comprising a femoral head and reamer. The present invention also provides apparatus and methods for minimally invasive surgery on a hip or similar (eg shoulder) joint. The kit is suited for performing a hip hemiarthroplasty, in which a femoral head is fitted directly into a socket reamed into the acetabulum without any permanent liner or prosthetic acetabulum being implanted. The reamer is used to ream out the acetabulum until cancellous bone is exposed so that it bleeds liquid containing stem cells. By selecting the size of the femoral head in accordance with the characteristics of the patient, the pressure imposed on the liquid/ synovial fluid of the joint is in the range between 0.5 and 2MPa. This causes the stem cells to produce new cartilage between the bone and femoral head.

WO 2004/069062 A2